

REMARKS

Claims 1-42 were previously pending in the application. New Claims 43-55 are presented herein. The amendments and new claims do not introduce new matter since they are supported by the specification of the present application as filed. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art (AAPA) in view of Ren, et al. (U.S. Pat. No. 6,456,590). This rejection is respectfully traversed.

With respect to Claim 1, AAPA and Ren fail to at least show, teach or suggest n counters that selectively increment a count based on when a respective ingress module enqueues a buffer to a destination channel. When a buffer is enqueued, an address pointer is stored corresponding to a buffer. A buffer refers memory in which a received frame is stored.

The claimed invention of Claim 1 accurately tracks actual memory usage regardless of frame size via the claimed counters. By selectively incrementing a count based on when a respective ingress module enqueues a buffer to a destination channel, a counter tracks the number of buffers of a memory that are allocated (used). As each additional buffer is allocated, a counter is incremented. This provides for a count of actual memory usage.

The Examiner admits that AAPA fails to disclose the claimed counters and relies on Ren for such disclosure. The Examiner alleges that Ren teaches incrementing a counter if a channel receives a frame. Applicant submits that the counters of Ren are different than the recited counters. The counters of Ren are incremented based on frame reception, not based on enqueueing of a frame. Thus, the counter values of Ren are not representative of actual memory usage.

Not all received frames of a network switching device are stored in a memory. Some frames are dropped for policy reasons. Thus, although a frame is received, a buffer may not be enqueued.

The buffer size of a memory may not match the size of the received frame. Thus, unfilled memory may be allocated to a channel.

The bytes associated with allocated buffers (memory usage) may be different than the number of bytes of a frame. Thus, actual memory usage, as associated with a frame, is greater than the size of the frame.

The counters of Claim 1 are incremented when a buffer is allocated, not when a frame is received. For at least this reason, the counters track the actual amount of memory usage. As best understood by Applicant, Ren discloses incrementing only when a frame arrives at a received channel. See col. 7, lines 59-61 of Ren. The number of frames received does not represent actual memory usage on a network switching device.

Claim 1 is allowable for at least the above reasons.

With respect to Claim 1, AAPA and Ren also fail to at least show, teach or suggest egress modules that exercise flow control on a respective channel when a count, as recited in Claim 1, is greater than a pause threshold. Since AAPA and Ren fail to disclose the claimed incrementing, AAPA and Ren also fail to disclose flow control based on values of the claimed counters.

It is a longstanding rule that to establish a prima facie case of obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 143 (CCPA 1974), see MPEP §2143.03.

Therefore, Claim 1 is further allowable for at least the above reasons. Claims 13 and 23 are allowable for at least similar reasons as Claim 1. Claims 2-12, 14-22, 24-30 and 39-55 ultimately depend from Claims 1, 13 and 23 and are allowable for at least similar reasons.

With respect to Claim 31, AAPA, Ren and Langberg fail to at least show, teach or suggest incrementing a count when a buffer is enqueued and causing flow control on a channel when the count is greater than a pause threshold.

The Examiner admits that AAPA fails to disclose the claimed features of incrementing and flow control and relies on Ren for such disclosure. Applicant has shown that Ren also fails to show the claimed features. Applicant submits that Langberg also fails to disclose the claimed features. As best understood by Applicant, Langberg is directed to a rate adaptive digital subscriber line (RADSL) transceiver warm start activation procedure for enabling a DSL device to establish a communication connection. Langberg is not directed to flow control within a switch.

Therefore, Claim 31 is allowable for at least the above reasons. Claims 32-38 ultimately depend from Claim 31 and are allowable for at least similar reasons.

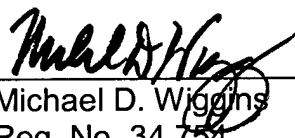
Therefore, Claim 31 is allowable for at least the above reasons. Claims 32-38 ultimately depend from Claim 31 and are allowable for at least similar reasons.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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